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31. (New) The method of claim 17, wherein calculating the index value comprises calculating a duration for the portfolio.

#### REMARKS

##### Introduction

This application is a continued prosecution application (CPA), filed July 31, 2000, of a continuation application, filed January 4, 1999. In the continuation application, an Office Action was issued on January 31, 2000. A Reply to the Office Action was not filed prior to filing this CPA application. Accordingly, these remarks will address the rejections and objections raised in the January 31, 2000 Office Action as well as the various amendments made by way of this Preliminary Amendment.

##### Summary Of Office Action

Claims 1-16 were pending in the continuation application at the time of the January 31, 2000 Office Action.

The Examiner objected to the abstract as being more than a single paragraph.

The Examiner rejected claims 1-11 under 35 U.S.C. § 101 as claiming the same invention (i.e., statutory double patenting) as claims 1-11 of Ginsberg U.S. Patent No. 5,857,176 (hereinafter "the '176 Patent") from which the continuation application and the present application claim priority. Claims 12-16 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of Ginsberg U.S. Patent No. 5,774,880 (hereinafter "the '880 Patent") from which the continuation application and the present application also claim priority. Claims 12-16 were also rejected under 35 U.S.C. § 101 as being directed to an abstract idea (or merely solving a mathematical problem) without limitation to a practical application. Claims 1 and 7 were also rejected

under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 12 and 13 were further rejected under 35 U.S.C. § 103(a) as being unpatentable over Towers U.S. Patent No. 4,566,066 (hereinafter "Towers"). Claims 14-16 were further rejected under 35 U.S.C. § 103(a) as being unpatentable over Towers and Tull, Jr. et al. U.S. Patent No. 5,946,667 (hereinafter "Tull").

Finally, the Examiner indicated that the Information Disclosure Statement filed on September 30, 1999 in the continuation application was misplaced from the file and requested that this document be resubmitted.\*

#### Summary Of The Preliminary Amendment

Applicant has amended the title to correct a typographical error. The specification has been amended to add a cross reference to the parent and grandparent applications, to more accurately reflect the drawings, and to correct typographical errors. The abstract has been amended to overcome the Examiner's objection. Amendments to FIGS. 2, 3, 4, 5, and 6 of the drawings have been proposed in order to correct typographical errors therein.

Applicant has canceled claims 1-16 without prejudice in order to overcome the Examiner's statutory and obviousness-type double patenting rejections and has added new claims 17-31 to more particularly define the invention.

Applicant has filed concurrently herewith a copy of the Information Disclosure Statement that was previously filed on September 30, 1999 and that was misplaced from file.

Applicant respectfully submits that this application, as amended, is in condition for allowance.

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\* The Examiner indicated that the Information Disclosure Statement was filed on October 4, 1999. Applicant respectfully submits, however, that this document was, in fact, filed on September 30, 1999.

#### The Amendment To The Title

Applicant has amended the title of the invention on page 1 of the specification to correct a typographical error. Particularly, the title on page 1 was changed from "FIXED INCOME PORTFOLIO DATA PROCESSOR" TO "FIXED INCOME PORTFOLIO INDEX PROCESSOR". This amendment matches the title on page 1 to the title on the cover sheet of the application and the Filing Receipt. No new matter has been added by this amendment of the title.

#### The Amendments To The Specification

Applicant has amended the specification to add a cross reference to the parent and grandparent applications of the present application, to more accurately reflect the drawings, and to correct typographical errors. These amendments add no new matter and are fully supported and justified by the specification and/or drawings. Markups of these amendments are provided in the Appendix attached hereto.

In accordance with 35 U.S.C. § 120, applicant has added the cross reference to the parent and grandparent applications before line 1 of page 1 in order to claim the benefit of the filing date of the grandparent application.

With reference to the amendments to make the specification more accurately reflect the drawings and the amendments to correct typographical errors, the following table indicates which amendments are to correct obvious typographical errors and, for all other amendments, where support and justification for the amendments can be found:

Amendment Location	Typographical Error, or Support and Justification
Page 1, line 9	Typographical Error
Page 1, line 15	Typographical Error
Page 2, line 1	Typographical Error
Page 2, line 13	Typographical Error

Amendment Location	Typographical Error, or Support and Justification
Page 3, line 27	Typographical Error
Page 4, line 4	Typographical Error
Page 7, line 27	Typographical Error
Page 8, line 24	FIG. 1, block 90
Page 8, line 28	FIG. 1, block 110
Page 11, line 16	FIG. 2, tests 230 and 270
Page 12, line 13	Typographical Error
Page 12, line 14	Typographical Error
Page 12, line 25	FIG. 2, tests 310 and 330, block 320
Page 12, line 28	FIG. 2, tests 290 and 330, and blocks 340 and 350
Page 14, line 25	Page 15, equation beginning "Y =", around line 18
Page 15, equation (1), around line 10	Typographical Error: the existing equation would be clearly erroneous to one of ordinary skill in the art as not indicating the price of the security, but rather the discount of the security. Moreover, the correct equation is well known. For a zero coupon security (such as a T-bill), the price is calculated as the face value of the security minus the face value multiplied by the interest rate for the security over the period remaining between the delivery date and the maturity date of the security. This is explained at page 1, line 27 through page 2, line 2.
Page 15, equation beginning "X =", around line 16	Typographical Error

Amendment Location	Typographical Error, or Support and Justification
Page 15, equation beginning "Y =", around line 18	Typographical Error: as indicated by the missing close-parenthesis in the denominator on the right side of the equation, the term "Coupon Date $P(I,N)$ " should be part of the denominator.
Page 15, before line 20	Page 15, equation (1), around line 10
Page 15, equation (3), around line 24	Typographical Error: the existing equation would be clearly erroneous to one of ordinary skill in the art as not being a solution to the other equations presented on page 15. The new equation is simply an accurate solution of those equations that can be found using basic algebra.
Page 16, line 1	FIG. 3, blocks 450 and 500
Page 16, line 16	In conjunction with the proposed amendment to FIG. 3
Page 16, line 19	Page 15, lines 13-25
Page 16, line 20	In conjunction with the proposed amendment to FIG. 3
Page 16, line 26 (first)	In conjunction with the proposed amendment to FIG. 3, and block 540 of FIG. 3
Page 16, line 26 (second)	Typographical Error
Page 16, line 27	Typographical Errors
Page 16, line 28	Typographical Error
Page 16, line 29	Typographical Error
Page 16, line 30	Typographical Error
Page 17, line 7	Page 11, lines 18-20
Page 17, line 9 (first)	FIG. 4, block 610
Page 17, line 9 (second)	Page 11, lines 18-20
Page 17, line 9 (third)	FIG. 4, block 620
Page 18, line 2	FIG. 5, block 710
Page 18, line 8 (first)	FIG. 5, block 750

Amendment Location	Typographical Error, or Support and Justification
Page 18, line 8 (second)	FIG. 5, block 760
Page 18, line 10	FIG. 5, block 770
Page 18, line 12	FIG. 5, blocks 790 and 795
Page 18, line 13	FIG. 5, block 820
Page 18, line 14	FIG. 5, block 830
Page 18, at the end of the paragraph ending at line 14	FIG. 5, test 780 and block 840
Page 18, line 17	FIG. 5, block 860
Page 18, line 21	Typographical Error
Page 18, line 27	Typographical Error
Page 18, line 28	Typographical Error
Page 18, line 31	Typographical Error; page 18, line 30 through page 19, line 2.
Page 19, line 12	Typographical Error
Page 19, line 14	Typographical Errors
Page 19, line 15	Typographical Error
Page 19, line 30	Typographical Error
Page 19, line 31	Typographical Error
Page 20, line 3	Typographical Error
Page 20, line 5	Typographical Error
Page 20, line 13	In conjunction with amendment to page 20, line 14; FIG. 6, block 970.
Page 20, line 14	In conjunction with amendment to page 20, line 13; FIG. 6, block 970.
Page 20, line 15	Typographical Error
Page 20, line 22	Typographical Error

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Applicant's Reply To The  
Objection To The Abstract

The Examiner objected to the abstract as being more than a single paragraph. Applicant has amended the abstract of the invention by deleting the paragraph at lines 12-17 on page 25 of the application. This amendment of the abstract adds no new matter. As amended, the abstract is now a single paragraph. Accordingly, applicant respectfully requests that the objection to the abstract be withdrawn.

The Proposed Amendments To The Drawings

Applicant requests approval to make the above-mentioned amendments to the drawings to correct minor typographical errors in the drawings and to more accurately reflect the specification. Pursuant to MPEP § 608.02(r), these proposed amendments are also set forth in a separate Letter to Official Draftsperson which is being filed concurrently herewith. These proposed amendments would add no new matter and, as indicated in the following table, are fully supported and justified by the specification or are merely correct obvious typographical errors:

Amendment	Typographical Error, or Support and Justification
FIG. 2, delete reference numeral "260"	Reference numeral "260" not mentioned in specification
FIG. 2, move location of "NO" indicator	Typographical Error
FIG. 2, extend the arrow pointing downward from test 330	Typographical Error
FIG. 3, block 460	Typographical Error
FIG. 3, block 500	Typographical Error
FIG. 3, delete arrow connecting blocks 520 and 530, and changes associated with new block 525	Page 16, lines 16-19
FIG. 3, test 530	Page 16, lines 16-23

Amendment	Typographical Error, or Support and Justification
FIG. 3, delete arrow connecting test 530 and block 550, and connect arrow from block 540 directly to block 550	In conjunction with addition of block 535 to FIG. 3.
FIG. 3, add a block 535 and corresponding arrows	Page 16, lines 16-23
FIG. 4, block 610	Typographical Error
FIG. 4, test 620	Typographical Error
FIG. 4, block 630	Typographical Error
FIG. 4, block 670	Typographical Error
FIG. 5, block 720	Typographical Error
FIG. 5, block 730	Typographical Error
FIG. 5, block 790	Typographical Error
FIG. 5, block 880	FIG. 5, block 860 and page 18, lines 15-18
FIG. 5, delete reference numeral "890"	Typographical Error
FIG. 6, block 900	Page 19, lines 26-28
FIG. 6, block 910	Page 19, lines 29-30

Applicant's Reply To The Rejections Of The Claims

The Examiner rejected claims 1-11 under 35 U.S.C. § 101 as claiming the same invention (i.e., statutory double patenting) as claims 1-11 of the '176 Patent from which the present application claims priority. Claims 12-16 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of the '880 Patent from which the present application also claims priority. Claims 12-16 were also rejected under 35 U.S.C. § 101 as being directed to an abstract idea (or merely solving a mathematical problem) without limitation to a practical application. Claims 1 and 7 were also rejected under 35 U.S.C. § 112, second



paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 12 and 13 were further rejected under 35 U.S.C. § 103(a) as being unpatentable over Towers. Claims 14-16 were further rejected under 35 U.S.C. § 103(a) as being unpatentable over Towers and Tull.\*

Applicant has canceled claims 1-16 without prejudice in order to overcome the Examiner's statutory and obviousness-type double patenting rejections. Accordingly, applicant respectfully requests that the rejections of these claims be withdrawn.

#### New Claims 17-31

Applicant has added new claims 17-31 to more particularly define the invention. These claims are fully supported by the specification and add no new matter.

Applicant respectfully submits that new claims 17-31 are allowable over the references cited for at least the reason that the these claims are directed to calculating an index value for a portfolio including at least one generic security from market data for other securities. Turning to claim 17, it can be seen that the claims all require:

calculating a value for each of the  
other securities from market data that is  
indicative of market conditions for the other  
securities in a market for the other securities;  
and

calculating the index value associated  
with the portfolio that includes . . . at least  
one security using each value for the other  
securities

(emphasis added).

Towers, on the other hand, discusses calculating a portfolio value for a portfolio of stocks based on the market data of the same stocks. Nowhere in Towers is it shown or suggested

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\* Applicant respectfully submits that Tull is not prior art to the present application as the earliest priority date of Tull is April 6, 1994, whereas the present application, as amended, is entitled to a priority date of June 10, 1992.

to calculate the value of a portfolio, that includes at least one security, based upon market data of other securities. Because Towers fails to show or suggest calculating an index value for a portfolio including at least one security from market data for other securities as claimed, applicant respectfully submits that claims 17-31 are not anticipated or made obvious by Towers.

With regard to the other reference cited in the Office Action, i.e., Tull, applicant respectfully submits that this reference is not prior art to the present application in light of the priority claim added herein under 35 U.S.C. § 120.

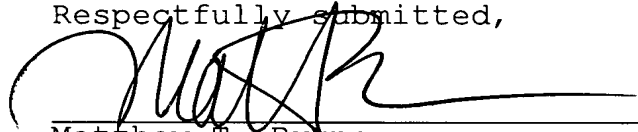
In light of the Examiner's rejection of now-canceled claims 12-16 under 35 U.S.C. § 101 as being directed to an abstract idea (or merely solving a mathematical problem), applicant also respectfully submits that new claims 17-31 are at least patentable subject matter because they fall within the safe harbor set forth in MPEP § 2106(IV)(B)(2)(b)(i) relating to "Manipulation of Data Representing Physical Objects or Activities (Pre-Computer Process Activity)". For at least the reason that claims 17-31 relate to "activities to be transformed outside of the computer into computer data" (MPEP § 2106(IV)(B)(2)(b)(i)), e.g., "market data that is indicative of market conditions for the other securities in a market for the other securities" (claim 17), these claims are statutory.

Accordingly, applicant respectfully submits that claims 17-31 are in condition for allowance.

Conclusion

For at least the reasons set forth above, applicant respectfully submits that this application, as amended, is in condition for allowance. Accordingly, reconsideration and prompt allowance of this application are respectfully requested.

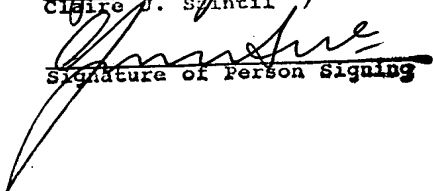
Respectfully submitted,

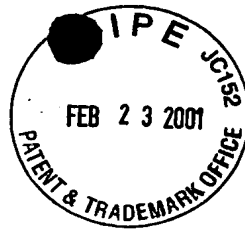


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I Hereby Certify that this  
Correspondence is being  
Deposited with the U.S.  
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Addressed to: ASSISTANT  
COMMISSIONER FOR  
PATENTS  
WASHINGTON, D.C. 20231 on

February 20, 2001  
Claire J. Stentel

  
Signature of Person Signing



APPENDIX  
MARKUPS OF AMENDMENTS

In The Specification

Please amend the specification as follows:

Page 1, before line 1, insert: --

CROSS REFERENCE TO RELATED APPLICATIONS

This is a continuation of copending, commonly assigned United States Patent Application No. 08/396,422, filed February 28, 1995, now United States Patent No. 5,774,880, issued June 30, 1998, which is a file wrapper continuation of United States Patent Application No. 07/897,377, filed June 10, 1992, now abandoned.

FIELD OF THE INVENTION--.

Page 1, line 9, change "FIELD" to --BACKGROUND--.

Page 1, line 15, change "This" to --These--.

Page 1, line 15, change "is one" to --are some--.

Page 2, line 1, after "discount" insert --being--.

Page 2, line 13, change "tenant" to --tenet--.

Page 4, line 4, change "makes" to --make--.

Page 7, line 27, change "the" to --a--.

Page 8, line 24, change "data, at block 90.

System" to --data. At block 90, system--.

Page 8, line 28, before "the" insert --at block 110,--

Page 11, line 16, change "240" to --270--.

Page 12, line 13, delete "seconds".

Page 12, line 14, delete "seconds".

Page 12, line 25, change "330" to --330, which is performed after performing block 320 or after a negative response to test 310,--.

Page 12, line 28, change "At" to --After removing disqualified data at block 340, determining a negative response to test 330, or determining a negative response to test 290, at--.

Page 14, line 25, change "Coupon Date\_X(I,1,J)" to --Coupon Date\_X(I,J)--.

Page 15, equation (1), around line 10, change the equation from:

$$\text{Price\_P(I)} = 100 \left( \frac{\text{Date\_P(I)} - \text{DD}}{360} \right) \text{Discount\_P(I)}$$

to:

$$\text{Price\_P(I)} = 100 - 100 \left( \frac{\text{Date\_P(I)} - \text{DD}}{360} \right) \text{Discount\_P(I)}$$

Page 15, equation beginning "X =", around line 16, delete "and".

Page 15, equation beginning "Y =", around line 18, change the equation from:

$$Y = \frac{\text{Date\_P(I)} - \text{DD}}{(\text{Coupon\_Date\_P(I,N+1)} - \text{Coupon\_Date\_P(I,N)})}$$

to:

$$Y = \frac{\text{Date\_P(I)} - \text{DD}}{(\text{Coupon\_Date\_P(I,N+1)} - \text{Coupon\_Date\_P(I,N)})} ;$$

Page 15, before line 20, insert:

100 is the face value of the security; and

360 is the convention for the number of days in a year for a T-bill security.

Page 15, equation (3), around line 24, change the equation from:

$$rP(I) = Z * \left( \frac{1}{\left( 1 - \frac{\text{Discount\_P(I)}}{100} \right) \left( \frac{\text{Date\_P(I)} - \text{DD}}{360} \right)} - 1 \right)$$

to:

$$rP(I) = 2 * \left( \frac{1}{\left( 1 - \frac{(\text{Date\_P(I)} - \text{DD}) * \text{Discount\_P(I)}}{360} \right)} - 1 \right) Z$$

Page 16, line 1, change "negative" to --positive--.

Page 16, line 16, before "and" insert --block 525--.

Page 16, line 16, after "At" insert --block 525 and--.

Page 16, line 19, after "rate" insert --for that coupon--.

Page 16, line 20, change "data;" to --data at block 535;--.

Page 16, line 24, change "maturity" to --maturing--.

Page 16, line 26, change "This" to --After performing the operations at blocks 535 or 540, this--.

Page 16, line 26, before "block" insert --via--.

Page 16, line 27, change "with" to --then--.

Page 16, line 27, after "data" insert --is--.

Page 16, line 28, before "block" insert --at--.

Page 16, line 29, before "block" insert --at--.

Page 16, line 30, before "block" insert --at--.

Page 17, line 7, before "set" insert --data for the--.

Page 17, line 9, after "values)" insert --at block 610--.

Page 17, line 9, change "Active" to --data for the actives--.

Page 17, line 9, after "compared" insert -- at test 620--.

Page 18, line 2, change "asynchronous," to --asynchronous (no to test 710),--.

Page 18, line 8, after "portfolio," insert --via the counter in block 750,--.

Page 18, line 8, change "coupon" to --coupon, via the counter in block 760,--.

Page 18, line 10, change "rates;" to --rates, via the counter in block 770;--.

Page 18, line 12, change "block 790, et seq." to --blocks 790 and 795.--.

Page 18, line 13, after "J," insert --via block 820,--.

Page 18, line 14, change "K." to --K, via block 830.--.

Page 18, at the end of the paragraph ending at line 14, insert:

--If no match is found at test 780, the system tries the next security, via block 840.--.

Page 18, line 17, change "YTM" to --YTM\_F--.

Page 18, line 21, before "block" insert --at--.

Page 18, line 27, before "on" insert  
--contracts--.

Page 18, line 28, change "for e.g." to --for,  
e.g.,--.

Page 18, line 28, change "its" to --their--.

Page 18, line 31, change "treasury note" to  
--portfolio--.

Page 19, line 12, change "future" to --futures--.

Page 19, line 14, change "the future" to --a  
futures--.

Page 19, line 15, change "Future" to --Futures--.

Page 19, line 30, change "910" to --910,--.

Page 19, line 31, change "920" to --920,--.

Page 20, line 3, change "future" to --futures--.

Page 20, line 5, change "maturities" to  
--maturities,--.

Page 20, line 13, change "provided to" to  
--provided through--.

Page 20, line 13, change "vendors" to --vendors,  
block 970--.

Page 20, line 14, change "community, block 970" to  
--community--.

Page 20, line 15, change "980" to --980,--.

Page 20, line 22, change "future and option" to  
--futures and options--.